



# Australian Bureau of Statistics

## 6239.0 - Barriers and Incentives to Labour Force Participation, Australia, Aug 2004 to Jun 2005

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## Summary

### Main Features

#### NOTES

#### ABOUT THIS PUBLICATION

Barriers and Incentives to Labour Force Participation focuses on people who are 18 years and over who are either not employed or work very few hours (0-15 hours). The survey includes only those working less than 16 hours, rather than all part-time workers, as they have the potential to increase their labour force participation by a greater amount. The data collected provides information on the potential labour force and the characteristics of that potential labour force. Data from this survey are used to obtain a better understanding of the factors that influence people to join or leave the labour force. By knowing the barriers people face to joining the labour force or taking up (more) employment, a range of incentives to labour force participation can be indirectly identified.

The statistics in this publication were compiled from the Multi-Purpose Household Survey (MPHS), conducted throughout Australia from August 2004 to June 2005 as a supplement to the Australian Bureau of Statistics (ABS) monthly Labour Force Survey.

The other topics collected in the 2004-05 MPHS were:

- **Retirement and Retirement Intentions, Australia** (cat. no. 6238.0) released on 6 February 2006
- **Household Use of Information Technology, Australia** (cat. no. 8146.0) released on 15 December 2005.

#### DATA NOTES

The MPHS was designed primarily to provide estimates at the Australia level. Broad estimates are also available for states and territories, although users should exercise caution when using estimates at this level, because of the presence of high sampling errors.

Estimates in the electronic tables have been presented to the nearest 100, but the underlying numbers have been set at six decimal places to allow users the flexibility to calculate proportions or aggregate estimates. Many of the statistics included in the tables are subject to large sampling error. For instance, users should exercise caution when using estimates in the tables containing detailed age ranges. Detailed age ranges have been presented to allow users the flexibility to aggregate age ranges according to their needs. Many of the estimates presented in the tables should not be used unless they are aggregated to give more reliable estimates. Users should take note of the corresponding Relative Standard Errors (RSEs) to determine the reliability of the estimates and whether they are appropriate to use. For further information about the reliability of estimates see paragraph 13 of the Explanatory Notes. For details about how to calculate RSEs for estimates which have been aggregated see paragraphs 9 to 15 of the Technical Note.

## **ROUNDING**

As estimates have been rounded, discrepancies may occur between sums of the component items and totals.

## **INQUIRIES**

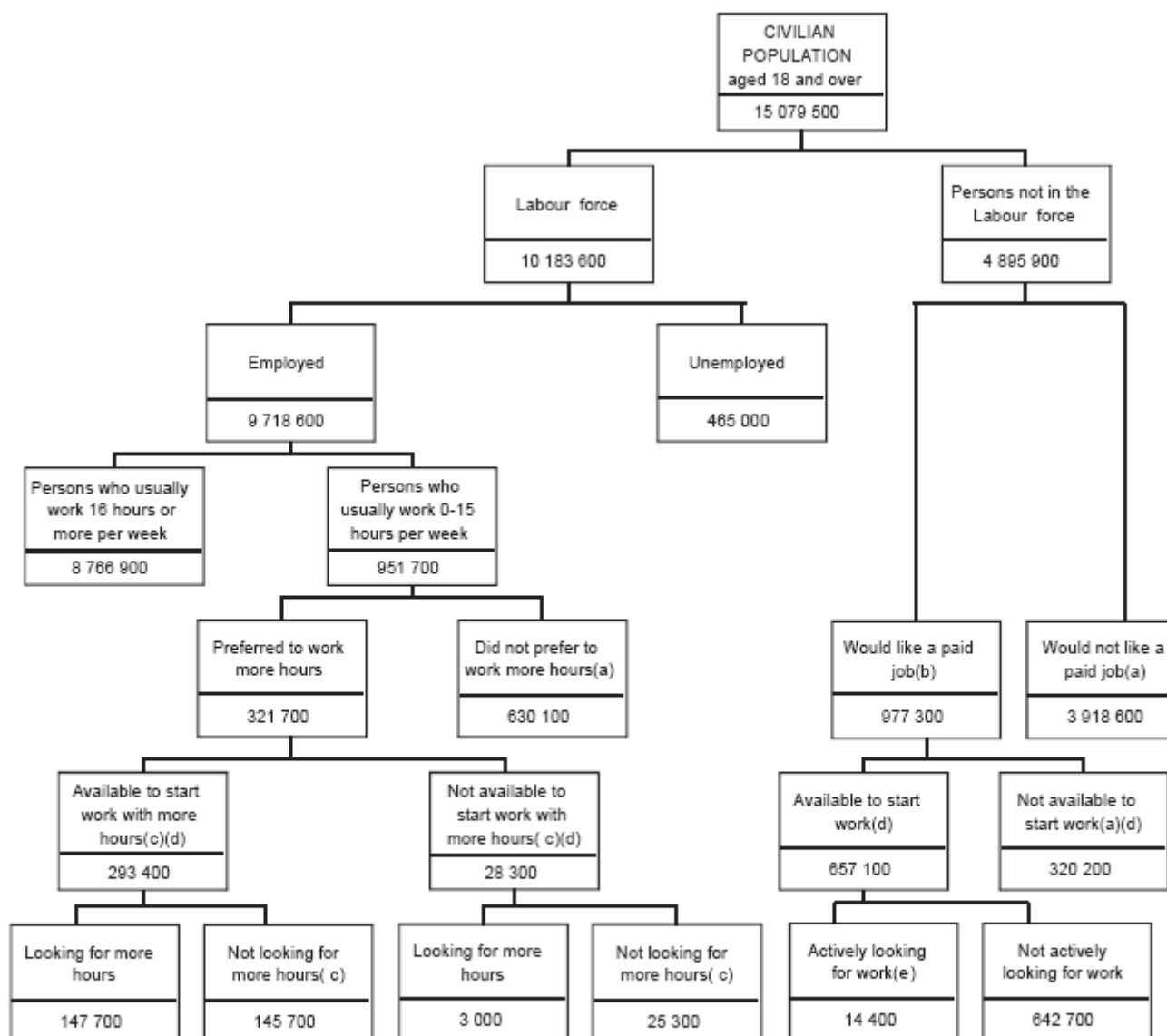
For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Labour Market Statistics Section on Canberra (02) 6252 7206.

## **SUMMARY COMMENTARY**

## **CONCEPTUAL FRAMEWORK**

## **OVERVIEW**

In understanding the barriers to labour force participation there are several groups of people who are of particular interest. These are the unemployed, persons not in the labour force and those who usually work relatively few hours (0-15 hours). For persons not in the labour force and those who usually work few hours it is important to ascertain whether they would like a paid job or more hours, whether they are available to start work, and whether they are looking for work.



(a) Includes did not know.

(b) Includes maybe/it depends.

(c) Includes some records for which availability has been imputed. For more information see paragraph 18 of the Explanatory Notes.

(d) Availability refers to reference week or within four weeks.

(e) These people were not available to start work in the reference week so they are defined as not in the labour force rather than unemployed.

## SUMMARY OF FINDINGS

### OVERVIEW

The 2004-05 Multi-Purpose Household Survey (MPHS) revealed that of the 15.1 million people aged 18 years and over, 9.7 million (64%) were employed, 465,000 (3%) were unemployed and 4.9 million (32%) were not in the labour force. Of those employed, 951,700 (10%) usually worked relatively few hours per week, that is, between 0 and 15 hours. Women comprised the majority of this group and of those not in the labour force (75% and 64% respectively), while more men than women were unemployed (56%).

Of the 6.3 million people not employed or who worked few hours, approximately 1.8 million (or 28%) indicated that they would like a job or more hours. This group comprised:

- 321,700 (or 18%) people who usually worked few hours per week;
- 465,000 (or 26%) people who were unemployed; and
- 977,300 (or 55%) people who were not in the labour force.

The remaining 4.5 million people (or 72%) did not want a job or did not want to work more hours, or were undecided.

The 6.3 million people who were unemployed, not in the labour force or working few hours have various reasons for not participating, or not participating fully, in the work force which are considered barriers to participation in the labour force. To better understand these barriers, information was collected on the reasons people are not fully participating in the labour force. By understanding such barriers to labour force participation, a range of incentives can also be indirectly identified.

## **PEOPLE WHO WANTED A JOB OR MORE HOURS**

Of the 1.8 million people who wanted a job or preferred more hours:

- 348,500 people indicated that they were not available to start a job, or work more hours, within four weeks;
- 813,700 were not looking for work (includes 25,300 persons who were also not available); and
- 627,000 people were available and looking for work or more hours.

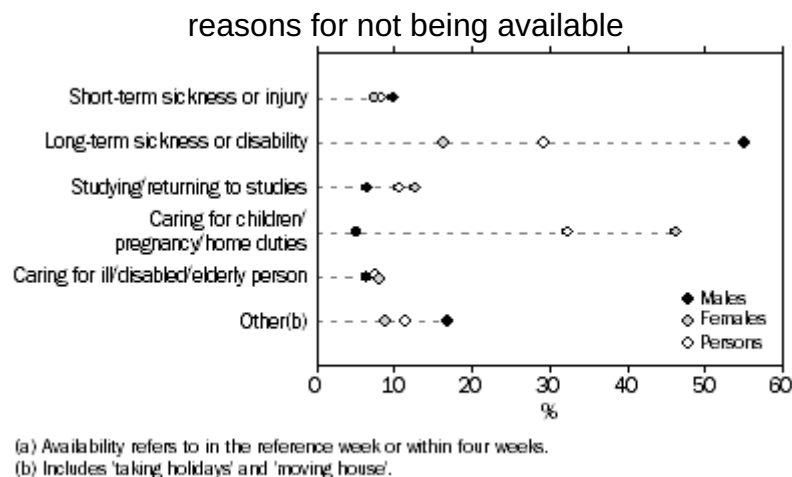
Women represented the largest proportion of those who wanted a job or more hours (62%), which is consistent with the fact that more women are underemployed or not in the labour force<sup>1</sup>.

### **Not available to start a job or work with more hours**

Determining whether those who are not employed or who work few hours are available to work is important because those who are available have a greater potential to increase labour force participation than those who are not available. Of the 1.8 million people who were not employed or who worked few hours and wanted a job or more hours, 1.4 million (80%) were available to start work within four weeks. The remaining 348,500 people (20%) were not available. People not in the labour force represented approximately 92% of those not available, while the remaining 8% comprised people who worked few hours. About two thirds (232,900 or 67%) of those who were not available were women.

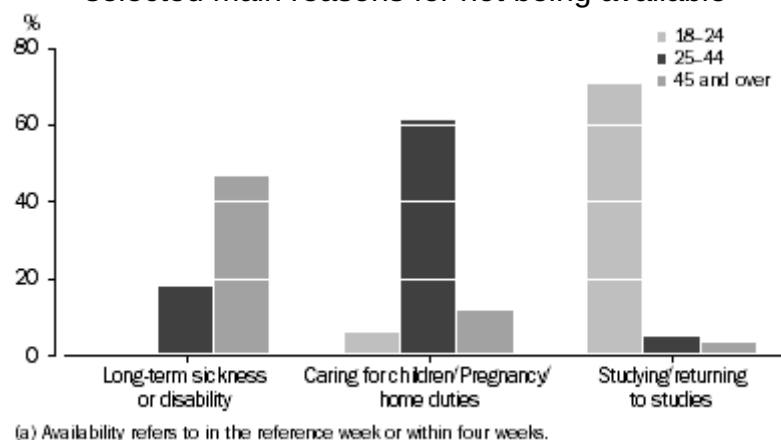
Men and women who were not in the labour force had different reasons why they were not available to start work within four weeks. Of the 107,100 men not in the labour force who wanted to work, the main reasons for not being available were long-term sickness or disability (55% or 58,900), followed by short-term sickness or injury (10% or 10,600). In contrast, a large proportion of the 213,100 women not in the labour force who wanted a job were not available due to child care, pregnancy or home duties (46%), followed by long-term sickness or disability (16%), and studying commitments (13%).

**People not in the labour force who wanted a job but were not available(a), Main**



Different reasons for not being available to work were also apparent among different age groups. For instance, a large proportion of people not in the labour force aged 25-44 (mainly women) who wanted to work, reported child care, pregnancy or home duties as the main reason that they were not available (61%); while a large proportion of young people (18-24 years) were not available due to study commitments (70%); and many of those aged 45 years and over were not available due to long-term sickness or disability (46%). Such differences reflect the various stages of life which can affect labour force participation.

#### People not in the labour force who wanted a job but were not available(a), Age by selected main reasons for not being available



#### Not looking for a job or work with more hours

Details about whether people were looking for work were collected from all employed people who worked few hours and wanted to work more (regardless of whether they were available), and from people not in the labour force who wanted to work and were available to work. Of the 1.8 million people who were not employed or who worked few hours and wanted a job or more hours, an estimated 813,700 people (46%) indicated that they were not looking for a job or more hours. Most of this group were women (574,100 or 71%) and most were not in the labour force (642,700 or 79%).

Like those who were not available, the most common reason for not looking for work, or more hours, was due to caring for children, pregnancy or home duties (22% or 180,900

people). Once again, women comprised the majority of this group (89% or 160,500) and people who gave those responses were most concentrated in the 25-44 year age group (70% or 126,100). Over 40% of people in this age group were not looking for work, or more hours, due to this reason. Another common reason given for not looking for work, or more hours, was studying or returning to studies (13% or 106,000 people). Of people who gave study as their main reason for not looking for work, most (69% or 73,000) were aged between 18 and 24, with 52% of this age group citing it as their main reason. Being considered too old by employers was given as the main reason for not looking for work, or more hours, by 9.7% of those who were not looking. Of people who gave this as their main reason 92% (or 72,600) were aged 55 years and over, with 30% of this age group citing it as their main reason.

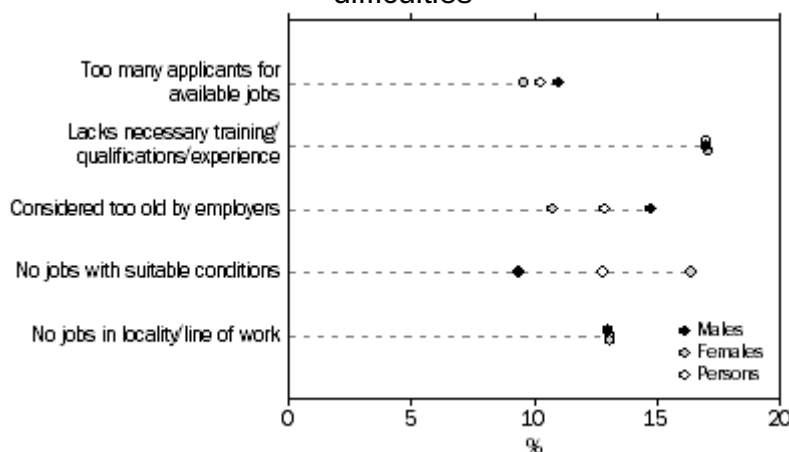
## Looking and available to start a job or work with more hours - difficulties encountered

There were 627,000 people who were available to start a job, or work more hours, and were looking for work, of which:

- 465,000 were unemployed (74%);
- 147,700 usually worked few hours (24%);
- 14,400 were not in the labour force (2%) (these people are defined as not in the labour force because they were not available to start work in the reference week, but were available to start within four weeks).

There were varied responses from those people who were available and looking for a job or work with more hours regarding the difficulties they have in finding a job or work with more hours. Overall, the main difficulty reported by this group was that they lacked the necessary training, qualifications and experience (106,800 people or 17%). Over 60% (or 67,700) of the people who reported this as their main difficulty held no non-school qualifications, of which 43% were aged 18 to 24. No jobs with suitable conditions was also a commonly reported difficulty (80,200 people or 13%), of which 62% were women. Most of those who reported unsuitable conditions as a difficulty in obtaining work, or more hours, were aged 18-44 years (71,800 or 90%), which may reflect a need for more flexible working arrangements due to education and family responsibilities. Approximately 44% (or 35,700) of those who reported their main difficulty as being considered too old by employers were aged 55 years and over, and 60% of this group were men. This reflects the larger proportion of men aged 55 years and over who were available and looking for work or more hours (14% of men compared with 8% of women).

### People available and looking for a job or work with more hours, Selected main difficulties



## Preferred weekly hours

The preferred number of hours of work were collected from people not in the labour force who wanted a job and people who usually worked few hours and wanted to work more. Men and women who usually worked 0 to 15 hours per week displayed different preferences in the number of hours they would like to work. Among the 95,500 men who wanted more hours, 62,400 (65%) indicated that they would like to work full-time hours (35 hours or more). In contrast, a greater proportion of women preferred to work part-time hours (68% or 154,400 women). Older people who usually worked 0 to 15 hours preferred to work less hours than their younger counterparts. For instance, the average preferred number of hours for people aged 55 years and over was 25 hours per week, compared with 30 hours for those aged 18 to 34 years.

Of the 977,300 people not in the labour force who wanted a job, 73% reported that they would prefer to work part-time hours (57% of men and 81% of women). The average preferred number of hours was 22 (25 hours for men and 20 hours for women).

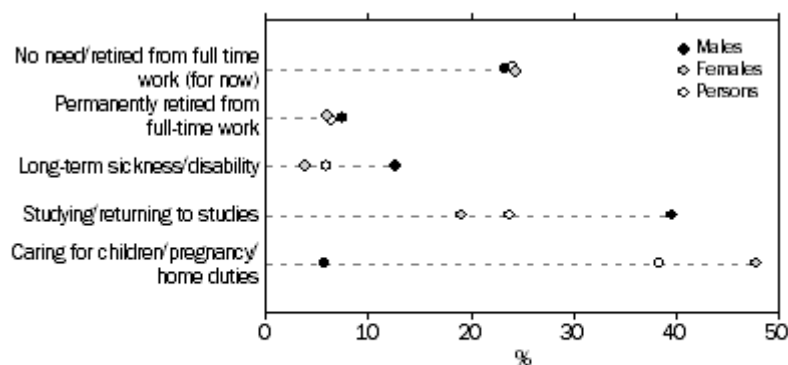
## PEOPLE WHO DO NOT WANT MORE WORK

Over 70% of people (or 4.5 million) who were not employed or who worked few hours indicated that they did not want a job or more hours. This comprised 630,100 people who usually worked few hours, and 3.9 million people not in the labour force. By definition all unemployed people wanted a job and were actively looking. Almost two-thirds (65%) of those who did not want a job or more hours were women.

The men and women who usually worked few hours and did not want to work more had very different characteristics and reasons for not wanting more hours. Approximately 45% (or 219,700) of women who did not want more hours were aged 25-44 years and 23% (or 110,700) were aged 55 years and over. The most common reason women gave for not wanting more hours was 'caring for children/pregnancy/home duties' (48% or 233,300 women gave this response). This was a major factor for women aged 25-44 with 85% (or 186,600) of them giving this as a reason for not wanting more hours. This indicates that part-time work is particularly important for women who are raising children. Other common reasons for women not wanting more hours were 'no need/retired from full-time work (for now)' (24% or 118,800), with 56% of this group aged 55 years and over, and 'studying/returning to studies' (19% or 93,400) with 72% of this group aged 18-24 years.

Of the 141,600 men who usually worked few hours, 44% (or 62,100) were aged 18-24 years and 35% (or 50,200) were aged 55 years and over. The most common reason given for not wanting more hours was due to study commitments (40% or 56,200), which reflects the large proportion of men aged 18-24 who did not want to work more hours. Other reasons commonly reported were 'no need/retired from full-time work (for now)' (23% or 32,900), of which 83% were aged 55 years and over, and long-term sickness or disability (13% or 18,000), of which 59% were aged 55 years and over.

**People who usually work few hours(a), Selected reasons for not wanting to work more hours(b)**

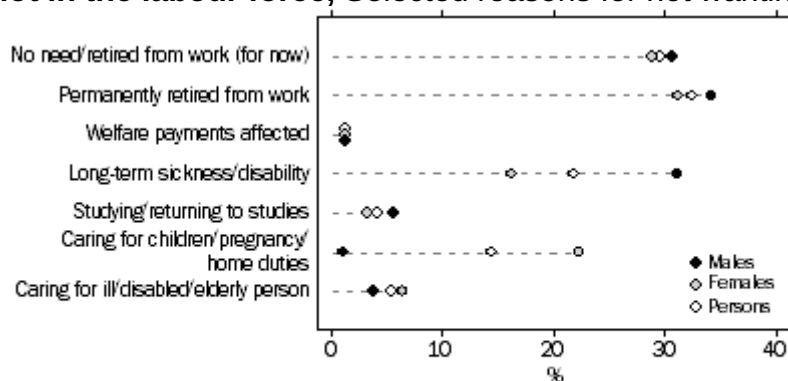


(a) Refers to people who usually work 0-15 hours per week.  
 (b) Refers to all reasons for not wanting more hours, therefore persons may appear in more than one category.

The age composition of people not in the labour force was quite different to people working few hours and it also differed for men and women. Of the 4.9 million people not in the labour force almost two-thirds (64%) were aged 55 years and over. Of men not in the labour force 75% were aged 55 and over. Of women not in the labour force 58% were aged 55 and over and 25% were aged 25-44.

The different age structure of people not in the labour force means that the reasons given for not wanting to work were quite different to the reasons given by those working few hours. Of the 3.9 million people not in the labour force who did not want to work, the most common reason for not wanting a job was due to being permanently retired (32% or 1.3 million), followed by no need/retired from work (for now) (30% or 1.2 million), and long-term sickness or disability (22% or 856,200). Long-term sickness or disability was reported by 31% of men (or 456,300) and was common for all age groups. Twenty-two per cent of women (or 546,900) also indicated that they did not want to work due to child care, pregnancy or home duties. Most of these women were aged 25-44 years (73%).

#### People not in the labour force, Selected reasons for not wanting a job(a)



(a) Refers to all reasons for not wanting a job, therefore persons may appear in more than one category.

<sup>1</sup>Sources: **Underemployed Workers, Australia** (cat. no. 6265.0) and **Persons Not in the Labour Force** (cat. no. 6220.0).

Provides information about people who are 18 years and over who are unemployed, not in the labour force or worked 0 to 15 hours. Data from this survey are used to obtain a better understanding of the factors that influence people to join or leave the labour force. By knowing the barriers people have to wanting, finding or taking up (more) employment a range of incentives to labour force participation can be indirectly identified. Estimates can be cross-classified by demographics such as state, sex, age, marital status and country of birth, as well as labour force characteristics.

# Explanatory Notes

## Explanatory Notes

### EXPLANATORY NOTES

#### INTRODUCTION

**1** These Explanatory Notes contain information about two publications, **Barriers and Incentives to Labour Force Participation, Australia** (cat. no. 6239.0) and **Retirement and Retirement Intentions, Australia** (cat. no. 6238.0). The statistics presented in both publications were compiled from data collected in the inaugural Multi-Purpose Household Survey (MPHS) that was conducted throughout Australia from August 2004 to June 2005 as a supplement to the Australian Bureau of Statistics (ABS) monthly Labour Force Survey (LFS). In future years, the survey will be conducted over the full financial year. The MPHS was designed to provide statistics annually for a small number of labour, social and economic topics. The topics collected in 2004-05 were:

- Barriers and Incentives to Labour Force Participation
- Retirement and Retirement Intentions
- Household Use of Information Technology

**2** For all topics, information on labour force characteristics, education, income and other demographics are also available. In addition to these publications, data from 2004-05 MPHS will also be released as an expanded Confidentialised Unit Record File (CURF) in 2006.

**3** The publication **Labour Force, Australia** (cat. no. 6202.0) contains information about survey design, sample redesign, scope, coverage and population benchmarks relevant to the monthly LFS, which also applies to the MPHS. It also contains definitions of demographic and labour force characteristics, and information about telephone interviewing relevant to both the monthly LFS and the MPHS.

#### CONCEPTS SOURCES AND METHODS

**4** The conceptual framework used in Australia's LFS aligns closely with the standards and guidelines set out in Resolutions of the International Conference of Labour Statisticians.

Descriptions of the underlying concepts and structure of Australia's labour force statistics, and the sources and methods used in compiling these estimates, are presented in **Labour Statistics: Concepts, Sources and Methods** (cat. no. 6102.0.55.001) which is also available on the ABS web site (Methods, Classifications, Concepts & Standards).

## COLLECTION METHODOLOGY

**5** ABS interviewers conducted personal interviews by either telephone or at selected dwellings during the period August 2004 to June 2005. Each month a sample of approximately 1,650 dwellings were selected for the MPHS from the responding households in the LFS. In these dwellings, after the LFS had been fully completed for each person, a usual resident aged 18 and over was selected at random and asked the additional MPHS questions in a personal interview. Information for this survey was collected using Computer Assisted Interviewing (CAI), whereby responses are recorded directly onto an electronic questionnaire in a notebook computer.

## SCOPE

**6** The scope of the LFS is restricted to people aged 15 years and over and excludes the following:

- members of the permanent defence forces
- certain diplomatic personnel of overseas governments, customarily excluded from census and estimated population counts
- overseas residents in Australia
- members of non-Australian defence forces (and their dependants).

**7** In addition the 2004-05 MPHS excluded the following:

- people under the age of 18 years
- people living in private dwellings living in very remote parts of Australia
- people living in non-private dwellings such as hotels, university residences, students at boarding schools, patients in hospitals, residents of homes (e.g. retirement homes, homes for people with disabilities), and inmates of prisons
- visitors to private dwellings.

**8** The 2004-05 MPHS was conducted in both urban and rural areas in all states and territories, but excluded people living in very remote parts of Australia. The exclusion of these people will have only a minor impact on any aggregate estimates that are produced for individual states and territories, except the Northern Territory where such people account for around 23% of the population.

## COVERAGE

**9** In the LFS, coverage rules are applied which aim to ensure that each person is associated with only one dwelling and hence has only one chance of selection in the survey. See **Labour Force, Australia** (cat. no. 6202.0) for more details.

## **SAMPLE SIZE**

**10** The initial sample for the MPHS 2004-05 consisted of 18,148 private dwelling households. Of the 15,524 private dwelling households that remained in the survey after sample loss (i.e. households with LFS non-response, no residents in scope for the LFS, vacant or derelict dwellings and dwellings under construction), approximately 86% were fully responding to the MPHS. The number of completed interviews obtained from these private dwelling households (after taking into account the scope, coverage and subsampling exclusions) was 5,880 for the Barriers and Incentives to Labour Force Participation survey and 6,913 for the Retirement and Retirement Intentions survey.

## **ESTIMATION METHODS**

**11** Weighting is the process of adjusting results from a sample survey to infer results for the total in scope population. To do this, a 'weight' is allocated to each sample unit, which, for the MPHS, can either be a person or a household. The weight is a value which indicates how many population units are represented by the sample unit. The first step in calculating weights for each unit is to assign an initial weight, which is the inverse of the probability of being selected in the survey. The initial weights are then calibrated to align with independent estimates of the population of interest, referred to as 'benchmarks'. Weights are calibrated against population benchmarks to ensure that the survey estimates conform to the independently estimated distribution of the population rather than the distribution within the sample itself.

**12** The survey was benchmarked to the estimated civilian population aged 18 years and over living in private dwellings in each state and territory in non-sparsely settled areas. The process of weighting ensures that the survey estimates conform to person benchmarks by state, part of state, age and sex, and to household benchmarks by state, part of state and household composition. These benchmarks are produced from estimates of the resident population derived independently of the survey.

## **RELIABILITY OF THE ESTIMATES**

**13** Estimates in this publication are subject to sampling and non-sampling errors:

- sampling error is the difference between the published estimate and the value that would have been produced if all dwellings had been included in the survey. For more information see the Technical Note.
- non-sampling errors are inaccuracies that occur because of imperfections in reporting by respondents and interviewers, and errors made in coding and processing data. These inaccuracies may occur in any enumeration, whether it be a full count or a sample. Every effort is made to reduce the non-sampling error to a minimum by careful design of questionnaires, intensive training and supervision of interviewers, and effective processing procedures.

## **CLASSIFICATIONS USED**

**14** Occupation data are classified according to the ASCO - **Australian Standard Classification of Occupations, Second Edition, 1997** (cat. no. 1220.0).

**15** Industry data are classified according to the ANZSIC - **Australian and New Zealand Standard Industrial Classification, 1993** (cat. no. 1292.0).

**16** Country of birth data are classified according to the **Standard Australian Classification of Countries (SACC), 1998** (cat. no. 1269.0).

**17** Educational attainment data are classified according to the **Australian Standard Classification of Education (ASCED)** (cat. no.1272.0).

## **AVAILABILITY NOT DETERMINED**

**18** In the Barriers and Incentives to Labour Force Participation survey, there were 114,500 people who usually worked 0 to 15 hours per week and preferred to work more hours but had not done anything in the four weeks prior to the reference week to obtain more hours of work, for whom availability was not determined. This group of people were not asked when they could start working more hours in those interviews conducted in the non-quarter months (ie September 04, October 04, December 04, January 05, March 05, April 05 and June 05). Information on availability was collected in the LFS in the quarter months and this was used to apportion the 'availability not determined' group to the categories - 'available to start work with more hours and not looking for more hours' and 'not available to start work with more hours and not looking for more hours'. The subset of LFS data used to calculate the proportions matched the scope of the MPHS, and where there were duplicate records across the quarter months, a record was selected at random. The proportions were calculated separately for males and females and for each state and territory. These proportions were then applied to the weighted MPHS estimates of people for whom availability was not determined.

## **COMPARABILITY WITH MONTHLY LFS STATISTICS**

**19** Due to differences in the scope and sample size of the MPHS and that of the LFS, the estimation procedure may lead to some variations between labour force estimates from this survey and those from the LFS.

## **PREVIOUS SURVEYS**

**20** The Barriers and Incentives to Labour Force Participation survey was conducted for the first time in 2004-05, while the Retirement and Retirement Intentions was last conducted in 1997, see **Retirement and Retirement Intentions, Australia** (cat. no. 6238.0).

**21** The topic Barriers and Incentives to Labour Force Participation is designed to bring various aspects of factors which influence participation into one data source for comparison. The related supplementary surveys of **Persons Not in the Labour Force, Australia** (cat.

no. 6220.0), **Underemployed Workers, Australia** (cat. no. 6265.0) and **Job Search Experience, Australia** (cat. no. 6222.0) offer more detailed information on the various populations.

**22** Since the 1997 issue of **Retirement and Retirement Intentions, Australia** (cat. no. 6238.0) there have been conceptual changes which affect time series comparisons. For instance, in the current issue 'retired from the labour force' is defined as 'persons who had previously worked for two weeks or more and had retired from work or looking for work, and did not intend to look for, or take up, work at any time in the future'. In the 1997 issue, this concept was defined as 'persons who had retired from work or looking for work of more than 10 hours per week, and did not intend to work in the future'. These people are considered fully retired. Persons who have never worked more than 10 hours were also treated as fully retired'. Due to such conceptual changes, users should exercise caution when comparing estimates with previous surveys.

## NEXT SURVEY

**23** The ABS is planning to conduct the 2004-05 topics again during the 2006-07 financial year and two-yearly thereafter. The topics included in the 2005-06 MPHS are:

- Work related injuries
- Household use of information technology
- Participation in sport and physical activity
- Attendance at selected culture and leisure venues and events.

## ACKNOWLEDGMENT

**24** ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated: without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the **Census and Statistics Act 1905**.

## RELATED PUBLICATIONS

**25** ABS publications which may also be of interest include:

- **Australian Labour Market Statistics** (cat. no. 6105.0)
- **Job Search Experience, Australia** (cat. no. 6222.0)
- **Underemployed Workers, Australia** (cat. no. 6265.0)
- **Persons Not in the Labour Force, Australia** (cat. no. 6220.0)
- **Superannuation, Australia** (cat. no. 6319.0)
- **Labour Force, Australia** (cat. no. 6202.0)
- **Employment Arrangements and Superannuation, Australia** (cat. no. 6361.0)
- **Labour Statistics: Concepts, Sources and Methods** (cat. no. 6102.0.55.001)
- **Household Use of Information Technology** (cat. no. 8146.0)

**26** Current publications and other products released by the ABS are listed in the **Catalogue of Publications and Products** (cat. no. 1101.0). The Catalogue is available from any ABS office or the ABS web site. The ABS also issues a daily Release Advice on the web site which details products to be released in the week ahead.

## Glossary

### GLOSSARY

#### Actively looking for work

Persons who were taking active steps to find work. Active steps comprise:

- registering with a Job Network employment agency
- contacting an employment agency
- contacting prospective employers
- answering a newspaper advertisement for a job
- checking Centrelink touchscreens
- checking factory notice boards
- advertising or tendering for work

#### Annuities

A series or stream of payments made at regular intervals, usually purchased with a lump sum from a life insurance company, typically to provide retirement income.

#### Available to start work

For persons not in the labour force, those who were available to start work in the reference week or within four weeks.

#### Available to start work with more hours

Employed persons who usually worked 0 to 15 hours per week in all jobs and were available to start work with more hours in the reference week or within four weeks.

#### Current job

The job in which a person currently works.

#### Did not prefer to work more hours

People who said 'no' or 'don't know' when asked 'would you prefer to work more hours than you usually work?'.

### **Duration of current main job/last job**

Length of time worked in current main job/last job.

### **Educational attainment**

Level of highest educational attainment identifies the highest achievement a person has attained in any area of study. It is defined as the highest educational attainment a person has achieved, and is not a measurement of relative importance of different fields of study.

### **Employed**

Persons who, during the reference week:

- worked for one hour or more for pay, profit, commission or payment in kind in a job or business, or on a farm (comprising employees, employers and own account workers); or
- worked for one hour or more without pay in a family business or on a farm (i.e. contributing family workers); or
- were employees who had a job but were not at work and were:
  - away from work for less than four weeks up to the end of the reference week; or
  - away from work for more than four weeks up to the end of the reference week and received pay for some or all of the four week period to the end of the reference week; or
  - away from work as a standard work or shift arrangement; or
  - on strike or locked out; or
  - on workers' compensation and expected to return to their job; or
- were employers or own account workers who had a job, business or farm, but were not at work.

### **Employees (excluding OMIEs) with paid leave entitlements**

Employees excluding Owner Managers of Incorporated Enterprises (OMIEs), who were entitled to either paid sick leave or paid holiday leave (or both).

### **Employees (excluding OMIEs) without paid leave entitlements**

Employees excluding OMIEs, who were not entitled to, or did not know whether they were entitled to, paid sick and paid holiday leave.

## **Employment types**

Classification of employed persons according to the following employment type categories on the basis of their main job (that is, the job in which they usually work the most hours):

Employee (excluding owner-manager of incorporated enterprise)

- with paid leave entitlements
- without paid leave entitlements

Owner manager

- owner managers of incorporated enterprises
- owner managers of unincorporated enterprises

Contributing family worker

## **Family**

Two or more persons, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption, step or fostering; and who are usually resident in the same household. The basis of a family is formed by identifying the presence of a couple relationship, lone parent-child relationship or other blood relationship. Some households will, therefore, contain more than one family.

## **Full-time educational attendance**

Persons aged 15-19 who, during the reference week were enrolled full-time at secondary or high schools, and those aged 15-24 who, during the reference week, were enrolled full-time at a Technical and Further Education (TAFE) college, university, or other tertiary educational institution.

## **Full-time workers (usual)**

Employed persons who usually worked 35 hours or more a week (in all jobs).

## **Future starters**

Persons who were not employed during the reference week, were waiting to start a job within four weeks from the end of the reference week, and could have started in the reference week if the job had been available then.

## **Government pension/allowance**

Income support payments from government to persons under social security and related government programs. Included are pensions and allowances received by aged, disabled, unemployed and sick persons, families and children, veterans and their survivors, and study allowances for students. Payments made by overseas governments as well as the Australian government are included.

### **Gross income**

Regular and recurring cash receipts including monies received from wages and salaries, government pensions and allowances, and other regular receipts such as superannuation, workers' compensation, child support, scholarships, profit or loss from own unincorporated business or partnership, and property income. Gross income is the sum of current income from all these sources before income tax or the Medicare levy have been deducted.

### **Group jack-knife method**

This method of calculating standard errors starts by dividing the survey sample into a number of approximately equal-sized groups (replicate groups). Replicate estimates of the population total are then calculated from the sample by excluding each replicate group in turn. The jack-knife variance is derived from the variation of the respective replicate estimates around the estimate based on the whole sample.

### **Has ever worked for two weeks or more**

Persons who are not in the labour force or are unemployed and have previously worked for two weeks or more.

### **Incorporated enterprise**

An enterprise which is registered as a separate legal entity to its members or owners. Also known as a limited liability company.

### **Industry**

All occurrences of industry refer to Division, as classified by the **Australian and New Zealand Standard Industrial Classification** (ANZSIC), 1993 (cat. no. 1292.0).

### **Intends to partially retire**

Full-time workers who indicated that they intend to give up full-time work and work part-time but never retire from the work force.

### **Intends to retire from full-time work**

Employed persons who indicated that they intend to give up working full-time and partially retire and/or retire from the labour force. This concept has changed since the 1997 issue of this publication - previously defined as 'those persons who indicated that they intend to give up working or looking for full-time work'.

### **Intends to retire from the labour force**

Those persons who indicated that they intend to give up all labour force activity, that is working or looking for work.

### **Labour Force**

The civilian population can be split into two mutually exclusive groups: the labour force (employed and unemployed persons) and persons not in the labour force.

### **Last job**

Refers to last job less than 20 years ago.

### **Looking for work with more hours**

Refers to persons who indicated that they had done something in the last four weeks to obtain more hours of work.

### **Main English-speaking countries**

Comprises the United Kingdom, Ireland, Canada, South Africa, the United States of America and New Zealand.

### **Main job**

The job in which most hours were usually worked.

### **Non-school qualification**

Non-school qualifications are awarded for educational attainments other than those of pre-primary, primary or secondary education. They include qualifications at the Post Graduate Degree Level, Master Degree Level, Graduate Diploma and Graduate Certificate Level, Bachelor Degree Level, Advanced Diploma and Diploma level, and Certificates I, II, III and IV levels. Non-school qualifications may be attained concurrently with school qualifications.

## **Not employed**

Persons who are either unemployed or not in the labour force.

## **Not retired from the labour force**

People aged 45 years and over who have, at some time, worked for two weeks or more and were not retired from the labour force. That is, either employed or intending to look for, or take up, work in the future.

## **Occupation**

All occurrences of occupation in this publication refer to Major Group as defined by ASCO - **Australian Standard Classification of Occupations**, Second Edition (cat. no. 1220.0).

## **Owner managers**

Persons who work in their own business, with or without employees, whether or not the business is of limited liability.

## **Owner managers of incorporated enterprises**

Persons who work in their own unincorporated enterprise, that is, a business entity which is registered as a separate legal entity to its members or owners (also known as a limited liability company).

## **Owner managers of unincorporated enterprises**

Persons who operate their own unincorporated enterprise, that is, a business entity in which the owner and the business are legally inseparable, so that the owner is liable for any business debts that are incurred. Includes those engaged independently in a trade or profession.

## **Part-time workers (usual)**

Employed persons who usually worked less than 35 hours a week (in all jobs).

## **Permanently not intending to work**

Persons who said that they were permanently not intending to work.

**Persons in the labour force**

Persons who were classified as being in the labour force, that is, either employed or unemployed.

**Persons not in the labour force**

Persons who were not in the categories 'employed' or 'unemployed' as defined.

**Preferred to work more hours**

Employed persons who usually work 0 to 15 hours each week and would prefer to work more hours than they usually work.

**Previous job**

Persons who are not in the labour force or are unemployed, who have previously worked for two weeks or more, less than 20 years ago.

**Reference week**

The week preceding the week in which the interview was conducted.

**Relationship in household**

The relationship of people who live in the same household.

**Retired from the labour force**

Persons who had previously worked for two weeks or more and had retired from work or looking for work, and did not intend to look for, or take up, work in the future. This concept has changed since the 1997 issue - previously 'persons who had retired from work or looking for work of more than 10 hours per week, and did not intend to work at any time in the future. These people are considered fully retired. Persons who have never worked more than 10 hours per week were also treated as fully retired'.

**Retirement scheme**

Includes superannuation schemes, life assurance policies or similar schemes that provide financial benefit when a person leaves work.

## **Status in employment**

Employed persons classified by whether they were employees, employers, own account workers, or contributing family workers.

## **Superannuation scheme**

Any fund, association or organisation set up for the purpose of providing financial cover for members when they retire from work. For this survey, information about superannuation scheme membership was collected if the respondent indicated that contributions had been made to a scheme. Contributions could either have been made by the respondent, the respondent's partner or the respondent's employer.

## **Time since last job**

The elapsed time since ceasing last job.

## **Took inactive steps**

People who did not take active steps to look for work (see actively looking for work). Includes only looked in newspapers.

## **Unemployed**

Persons who were not employed during the reference week, and:

- had actively looked for full-time or part-time work at any time in the four weeks up to the end of the reference week and were available for work in the reference week; or
- were waiting to start a new job within four weeks from the end of the reference week and could have started in the reference week if the job had been available then.

## **Unincorporated enterprise**

A business entity in which the owner and the business are legally inseparable, so that the owner is liable for any business debts that are incurred.

## **Unpaid activities**

Includes caring for own children or other people's children including grandchildren. Also includes caring for elderly or someone with long-term illness or disability.

## **Usual number of hours**

The number of hours usually worked in a week in all jobs.

### **Would like a paid job**

Persons who are not in the labour force and would like a paid job of any kind. Includes people who said 'depends'.

### **Would like more hours**

See 'preferred to work more hours'.

### **Would not like a paid job**

Persons who were not classified as employed or unemployed who answered 'no' or don't know when asked if they would like a paid job.

## **Abbreviations**

The following symbols and abbreviations are used in this publication:

'000	thousand
ABS	Australian Bureau of Statistics
ANZSIC	Australian and New Zealand Standard Industrial Classification
ASCED	Australian Standard Classification of Education
ASCO	Australian Standard Classification of Occupations
Aust.	Australia
CAI	computer assisted interviewing
CURF	Confidentialised Unit Record File
LFS	Labour Force Survey
MPHS	Multi-Purpose Household Survey
MPS	Monthly Population Survey
n.f.d.	not further defined
NILF	not in the labour force
OMIE	owner manager of incorporated enterprise
RSE	relative standard error
SACC	Standard Australian Classification of Countries
SE	standard error
TAFE	Technical and Further Education

## **Appendix**

## **APPENDIX POPULATIONS AND DATA ITEM LIST**

### **DATA AVAILABLE ON REQUEST**

The ABS has a range of data available on request from the labour topics of the Multi-Purpose Household Survey (MPHS), that is, **Barriers and Incentives to Labour Force Participation, Australia** (cat. no. 6239.0) and **Retirement and Retirement Intentions, Australia** (cat. no. 6238.0) . More detailed breakdowns of some data items may also be available on request.

The population(s) for a particular data item refer to the persons in the survey to whom the data item relates. Where alternative output categories are available for the same data item, these are shown and the data item name is followed by a bracketed numeral (e.g. Country of birth (2)).

For information about ABS data available on request, contact the Labour Market Statistics Section on Canberra (02) 6252 7206.

### **BARRIERS AND INCENTIVES TO LABOUR FORCE PARTICIPATION**

Population 1: All persons aged 18 years and over.

Population 2: Employed persons.

Population 3: Unemployed persons.

#### **Persons not in the labour force**

Population 4: Persons not in the labour force.

Population 5: Persons who would like a paid job.

Population 6: Persons who would like a paid job but are not available start within four weeks.

Population 7: Persons who would like a paid job but are not actively looking for a job.

Population 8: Persons who would not like a paid job or did not know.

#### **Employed persons who usually work 0 to 15 hours per week in all jobs**

Population 9: Persons who usually work 0 to 15 hours per week in all jobs.

Population 10: Persons who would prefer to work more hours.

Population 11: Persons who would prefer to work more hours but are not available to start within four weeks.

Population 12: Persons who would prefer to work more hours but are not looking for work with more hours.

Population 13: Persons who would not prefer to work more hours.

## **RETIREMENT AND RETIREMENT INTENTIONS**

Population 14: Persons aged 45 years and over.

Population 15: Persons aged 45 years and over who have worked, at some time, for two weeks or more.

Population 16: Persons in the labour force aged 45 years and over.

Population 17: Employed persons aged 45 years and over.

Population 18: Persons not in the labour force aged 45 years and over.

Population 19: Persons aged 45 years and over who have retired from the labour force.

Population 20: Persons aged 45 years and over who have worked, at some time, for two weeks or more, and are not retired from the labour force.

Population 21: Persons aged 45 years and over who intend to retire from the labour force.

The 'Populations and data items list' Data Cube contains the list of data items available from the 2004-05 MPHS and can be accessed through the 'Details' tab.

## **Re-issue of 6239.0 Table 1 (I-Note) - Data Cubes**

**REISSUE OF 6239.0 TABLE 1. PERSONS AGED 18 YEARS AND OVER - Labour force status by sex and state**

Table 1 of **Barriers and Incentives to Labour Force Participation, Australia** (cat. no.

6239.0) has been reissued due to the presence of hidden rows, which contained irrelevant data. The reissued table does not contain any hidden rows. No changes have been made to the figures presented in table 1.

# Technical Note

## TECHNICAL NOTE DATA QUALITY

### INTRODUCTION

**1** Since the estimates published in **Barriers and Incentives to Labour Force Participation, Australia** (cat. no. 6239.0) are based on information obtained from occupants of a sample of dwellings, they are subject to sampling variability. That is, they may differ from those estimates that would have been produced if all dwellings had been included in the survey. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample of dwellings was included. There are about two chances in three (67%) that a sample estimate will differ by less than one SE from the number that would have been obtained if all dwellings had been included, and about 19 chances in 20 (95%) that the difference will be less than two SEs. Another measure of the likely difference is the relative standard error (RSE), which is obtained by expressing the SE as a percentage of the estimate.

**2** In general, the size of the SE increases as the size of the estimate increases. Conversely, the RSE decreases as the size of the estimate increases. Very small estimates are thus subject to such high RSEs that their value for most practical purposes is unreliable. In the tables in this publication, only estimates with RSEs of 25% or less are considered reliable for most purposes. Estimates with RSEs greater than 25% but less than or equal to 50% are preceded by an asterisk (e.g. \*3.4) to indicate they are subject to high SEs and should be used with caution. Estimates with RSEs of greater than 50%, preceded by a double asterisk (e.g. \*\*0.3), are considered too unreliable for general use and should only be used to aggregate with other estimates to provide derived estimates with RSEs of less than 25%.

### CALCULATION OF STANDARD ERROR AND RELATIVE STANDARD ERROR

**3** RSEs for all tables are provided. The RSEs have been derived using the group jackknife method. SEs can be calculated using the estimates (counts or means) and the corresponding RSEs.

**4** An example of the calculation of the SE from an RSE follows. Table 2.1 shows that the estimated number of females aged 18-24 who did not prefer to work more hours is 79,100. The corresponding RSE table for 2.1 shows that the RSE for this estimate is 16.4%. The SE is:

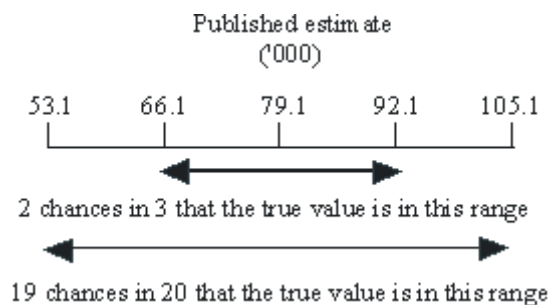
## SE of estimate

$$= (\text{RSE} / 100) \times \text{estimate}$$

$$= 0.164 \times 79,100$$

$$= 13,000 \text{ (rounded to the nearest 100)}$$

5 Therefore, there are about two chances in three that the value that would have been produced if all dwellings had been included in the survey will fall within the range 66,100 to 92,100 and about 19 chances in 20 that the value will fall within the range 53,100 to 105,100. This example is illustrated in the diagram below.



## Proportions and percentages

6 Proportions and percentages formed from the ratio of two estimates are also subject to sampling errors. The size of the error depends on the accuracy of both the numerator and the denominator. A formula to approximate the RSE of a proportion is given below. This formula is only valid when x is a subset of y.

$$RSE\left(\frac{x}{y}\right) = \sqrt{[RSE(x)]^2 + [RSE(y)]^2}$$

7 Considering Table 2.1, of the 714,600 females who worked 0-15 hours each week, 488,400 or 68.3% did not prefer to work more hours. The RSE of 488,400 is 1.3% and the RSE for 714,600 is 0.7% (as shown in the corresponding RSE table for 2.1). Applying the above formula, the RSE for the proportion of females who did not prefer to work more hours is:

$$RSE = \sqrt{(1.3)^2 + (0.7)^2} = 1.1\%$$

8 Therefore, the SE for the proportion of females working 0-15 hours per week who did not prefer more hours is 0.8 percentage points  $(= (68.3/100) \times 1.1)$ . Therefore, there are about two chances in three that the proportion of females working 0-15 hours per week who did not prefer more hours is between 67.5% and 69.1%, and 19 chances in 20 that the proportion is within the range 66.7% to 69.9%.

## Sums or Differences between estimates

**9** Published estimates may also be used to calculate the sum of, or difference between, two survey estimates (of numbers, means or percentages). Such estimates are also subject to sampling error.

**10** The sampling error of the difference between two estimates depends on their SEs and the relationship (correlation) between them. An approximate SE of the difference between two estimates (x-y) may be calculated by the following formula:

$$SE(x-y) = \sqrt{[SE(x)]^2 + [SE(y)]^2}$$

**11** The sampling error of the sum of two estimates is calculated in a similar way. An approximate SE of the sum of two estimates (x + y) may be calculated by the following formula:

$$SE(x+y) = \sqrt{[SE(x)]^2 + [SE(y)]^2}$$

**12** An example follows. From paragraph 4 the estimated number of females aged 18-24 who did not prefer to work more hours is 79,100 and the SE is 13,000. From Table 2.1, the estimate of females aged 25-29 who did not prefer to work more hours is 34,400 and the SE is 5,600. The estimate of females aged 18-29 who preferred not to work more hours is:

$$79,100 + 34,400 = 113,500$$

**13** The SE of the estimate of females aged 18-29 who did not prefer to work more hours is:

$$SE = \sqrt{(13,000)^2 + (5,600)^2}$$

$$= 14,200 \text{ (rounded to the nearest 100)}$$

**14** Therefore, there are about two chances in three that the value that would have been produced if all dwellings had been included in the survey will fall within the range 99,300 to 127,700 and about 19 chances in 20 that the value will fall within the range 85,100 to 141,900.

**15** While these formulae will only be exact for sums of, or differences between, separate and uncorrelated characteristics or subpopulations, it is expected to provide a good approximation for all sums or differences likely to be of interest in this publication.

